WHAT IS CLAIMED IS:

1. A printer in which a PDL controller and a printer engine made up in a predetermined recording scheme are connected with each other by using a parallel interface for DMA-transferring image data to be printed via said interface, comprising:

control means for writing draw data developed in said PDL controller once into a buffer memory, reading the 90° rotated data from said buffer memory and making a DMA transfer to a memory of said printer engine.

2. The printer according to Claim 1, wherein draw data are divided into predetermined rectangular areas having the size of said buffer memory and for each of said rectangular areas, a top address of said rectangular area of a memory in the PDL controller, an effective print area width, the width of said rectangular area, the number of lines in said rectangular area or a transfer size as well as a top address of said rectangular area of a memory in said printer engine, an effective print area width, the width of said rectangular area, the number of lines in said rectangular area or a transfer size are set up to make a DMA transfer.

3. The printer according to Claim 1, wherein said buffer memory has an N × M bit size, N corresponds to a

positive integer times the size of the data bus at the PDL controller side and M corresponds to a positive integer times the size of the data bus at the printer engine.

4. The printer according to Claim 3, wherein a plurality of said buffer memories of N × M bit size are provided to write draw data from a memory within the PDL controller into one buffer memory and at the same time, read data from another buffer memory and write the data into a memory of the printer engine.

5. The printer according to Claim 1, wherein the draw data developed in said PDL controller are once written into an N × M bit and single buffer memory, the 90° rotated data are read from said buffer memory and the next draw data are written into said buffer memory while the data to be transferred from said buffer memory to said printer engine memory are read in the DMA transfer to said printer engine memory.

6. The printer according to Claim 1, wherein the draw data developed in said PDL controller are once written into a buffer memory and read out from said buffer memory and it is controlled corresponding to predetermined processing conditions whether 90° rotation of said data is executed or not in the DMA

transfer to said printer engine memory.

7. The printer according to Claim 6, wherein said predetermined processing conditions comprise the presence of respective like-sized sheets having different print directions and it is controlled corresponding to said predetermined processing conditions whether 90° rotation of said data is executed or not.

8. A printer according to Claim 1, wherein the draw data developed in said PDL controller are transferred to said buffer memory via a dedicated bus different from a common bus for transferring other data than draw data between said PDL controller and the printer engine.

9. A method for controlling a printer, in which a PDL controller and a printer engine made up in a predetermined recording scheme are connected with each other by using a parallel interface for DMA-transferring image data to be printed via said interface, the method comprising the steps of: writing the draw data developed in said PDL controller once into a buffer memory; reading the 90° rotated data from said buffer memory; and making a DMA transfer to a memory of said printer engine.

10. A print control apparatus, comprising:

generator means for generating bit map data on the basis of print data;

storage means for storing the bit map data generated by said generator means; and

rotator means for rotating said image data in transferring the image data stored in said storage means to a printer engine.

11. The print control apparatus according to Claim 10, wherein said rotator means causes a rotation in the case where the direction of a sheet in the generation of bit map data by said generator means differs from that of an actually printed sheet.

12. A print control method, using:

generator means for generating bit map data on the basis of print data; and

storage means for storing the bit map data generated by said generator means,

wherein said bit map data are rotated in transferring the bit map data stored in said storage means to the printer engine.

13. The print control method according to Claim 12, wherein said rotation is caused if the direction of a sheet in the generation of bit map data by said

generator means differs from that of an actually printed sheet.

14. A printer, comprising:

generator means for generating bit map data on the basis of print data;

storage means for storing the bit map data generated by said generator means;

a printer engine for making a print on the basis of said bit map data; and

rotator means for rotating said bit map data in transferring the bit map data stored in said storage means to said printer engine.

15. The printer according to Claim 14, wherein said rotation is caused if the direction of a sheet in the generation of bit map data by said generator means differs from that of an actually printed sheet.